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site concept study

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ALLEGHENY PORTAGE RAILROAD

NATIONAL HISTORIC SITE / PENNSYLVANIA

Recommended:

Randall D. Cooley — October 27, 1987
Superintendent, Allegheny Portage National Historic Site

Approved:

James W. Coleman — December 31, 1987
Regional Director, Mid-Atlantic

SUMMIT UNIT
SITE CONCEPT STUDY

ALLEGHENY PORTAGE RAILROAD NATIONAL HISTORIC SITE
Pennsylvania

United States Department of the Interior / National Park Service

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INTRODUCTION

The Summit Unit is the largest and most accessible portion of Allegheny Portage Railroad National Historic Site. It contains the most representative assemblage of features associated with the Allegheny Portage Railroad. Within its 462.7 acres are Incline 6, the Skew-Arch Bridge, the foundations of the Incline 6 Engine House, and the Lemon House -- a tavern built to accommodate Allegheny Portage Railroad passengers. These resources are considered to be the core historic area of the unit.

Because of these resources, the 1980 General Management Plan (GMP) for Allegheny Portage Railroad described the Summit Unit as the heart of the historic site. The GMP recommended that the area be redeveloped to resemble the George Storm painting of the historic period. The highest priority was given to restoration and redevelopment of the core historic area.

Many of the improvements to the site within the last seven years are a direct result of proposals in the GMP. Small sections of the summit level and incline tracks have been restored as recommended in the GMP. The GMP also initiated the closing of Gallitzin Road to vehicular traffic. The existing visitor center parking, picnic area with parking, and trail system were results of the GMP.

Some recommendations in the GMP have not been implemented. Westbound old U.S. 22 and Allegheny Township Road 7432 still separate the Skew-Arch Bridge from the rest of the site. A safe pedestrian crossing has not been built, nor has a protective structure for the restored engine house foundations.

Additional changes have occured outside the park boundaries and have impacted the unit. A large impact on the park has been the relocation of a major highway that provided park access. U.S. 22 has been realigned, thereby creating two roads. Old U.S. 22 is adjacent to the southern park boundary. New U.S. 22 is a new, modern, and efficient four-lane facility. This new alignment passes the park to the north. Park access from the highway is possible at either the Gallitzin or Cresson interchanges.

Another less direct but equally powerful impact on the site is the America's Industrial Heritage Project (AIHP). This is a regional planning project that is interpretively linking cultural resources in the region. As an important initial link in development of the region, Allegheny Portage is being included on both car tour routes and possible train tours that would stop near the park. These tour routes, along with other resources developing in the region, could increase the number of visitors at Allegheny Portage, as well as change their needs for orientation and interpretation.

The purpose of this plan is to review these changes occurring around the park, evaluate past recommendations for the summit, and develop additional alternatives in light of current conditions. The primary focus of the alternatives will be on visitor needs and experience; administration and maintenance will be included as they are impacted by the alternatives. From these alternatives a proposal has been chosen to provide an overall direction for the park. Additional planning decisions will need to be made in the

future. This document should provide the basis to guide those decisions.

The physical changes within Allegheny Portage have improved the site access and visitor sequence. The relocation of new U.S. 22 and development of the America's Industrial Heritage Project demand that the access to and role of the park be reviewed in terms of its changing context.

EXISTING RESOURCES

Resources

The natural resources of the park are typical of the Allegheny Mountain region. The region is heavily forested with second-growth mixed hardwoods interspersed with pines and hemlocks on low, open mountains. The animal population is typified by deer, small mammals, birds, and reptiles, including copperheads and rattlesnakes. The region's natural resources have been heavily altered by road building, mineral extraction, forest utilization, farming, and commercial and residential development.

Cultural resources are the heart of the park and the part that makes it significant in the nation's development. The major resources within the Summit Unit include the railroad grade for both Incline 6 and the summit level, the foundation of the Incline 6 Engine House, the Skew-Arch Bridge, and the Lemon House. These resources are on or adjacent to the railroad grade and are considered to be the core historic area for visitors. The railroad grade has silted in and requires excavation to return it to its original level. The engine house foundation has been stabilized and partially restored for interpretation; however, no structure has yet been built to protect it. The Lemon House and Skew-Arch Bridge have been altered since the significant historic period. Both are in relatively stable condition. The first floor of the Lemon House serves as the visitor center. The upper floors of the house are used as administrative headquarters. Maintenance and operations are in a new building west of the picnic area.

Other resources include a full-scale steam engine model (on loan from a local museum), the historic Gallitzin Road (which has been paved), stone culverts, the Lemon Mine, and several miles of trail. There may be additional resources which have not yet been located by archeological testing.

Visitor Experience

The existing visitor sequence for Allegheny Portage Railroad begins at the new Cresson interchange off new U.S. 22. A short drive past a commercial area puts the visitor at the park entrance. Once in the park visitors can go left to a secluded picnic area or right to the visitor center parking lot.

At the Lemon House visitor center visitors have the opportunity to learn about the Portage Railroad through a slide show, several exhibits, and a few three-dimensional models of the steam locomotives and canal boats. Outside the Lemon House are the stone foundations for the railroad, the engine house foundation, the replicated Incline 6 tracks leading down to the Skew-Arch Bridge, and the steam engine model.

The unit is easily accessible and has a logical, although not particularly aesthetic, entry. It contains a representative cross-section of Allegheny Portage Railroad remains, and is therefore, the logical point for interpreting the concept and operating details of this unique form of transportation.

Current Needs

Beyond the visitor center, the resources within the core historic area are significant but provide little physical evidence of what actually occurred at the site. The key to visitor understanding of how the Allegheny Portage Railroad worked is by expanding interpretive experiences. These should provide the visitor with ways to better visualize the process of moving cars up and down the inclines and to perceive the real scale of that operation.

The proposal and alternatives in the following section address these issues and the associated access and entry sequences.

PROPOSAL

Interpretive Model

This proposal will enhance the visitor experience by adding full-scale interpretive models. It will also provide a more convenient and aesthetic entry. The new entry will also enhance potential linkages to train and car tour routes. The visitor sequence will be as follows:

1. Visitor center (orientation, information, ALPO story, historic regional context)
2. Model of passenger car and locomotive
3. Lemon House (historic tavern, house, furnishings)
4. Engine house (technical story)
5. Model of canal boat
6. Skew-Arch Bridge
7. Model of canal boat

Visitors will be directed to the park from the new U.S. 22 /Gallitzin interchange. This new access will provide a more intimate entry through a forested area which is visually pleasing and will create a transition between the modern and historic settings. The new entrance road will end in a new parking lot in the existing field north of the Lemon House and railroad grade (see Proposal map). As a result, existing parking, the visitor center, and administrative functions will be moved out of the core historic area. Planting more trees will screen the parking lot from the historic scene. The Gallitzin Road will be closed to vehicles beyond the parking lot. Existing pavement will be removed from the closed section of the road between the new parking lot and old U.S. 22. The trace will be resurfaced with a dirt/gravel mix or paving that must be colored to blend with the historic scene. Gates at each end of this road segment will be designed to allow emergency access for fire or police and will also blend with the historic scene. The existing directional signs at the Cresson interchange will be replaced by new signs at the Gallitzin exit. The existing Lemon House parking area will be eliminated. Next to the parking area is a site for a new visitor center and additional administrative offices. The visitor center will orient people to the cultural opportunities and activities throughout the region, the social and economic context of the railroad era, the story of Allegheny Portage Railroad, and the impacts of the railroad. Addtional administrative space will be needed for personnel required to implement this proposal. Any additional administrative space plus park headquarters, will be located in the visitor center.

The railroad grade along the summit level will be excavated to its historic elevation. The railroad tracks will be restored (replicated where necessary) from the bend at the picnic area to below the Skew-Arch Bridge. This will require closing of old U.S. 22 westbound and possibly the Allegheny Township Road.

The visitor experience will be further enhanced by a full-scale, interpretive model of a locomotive and passenger car located in a fixed position on the

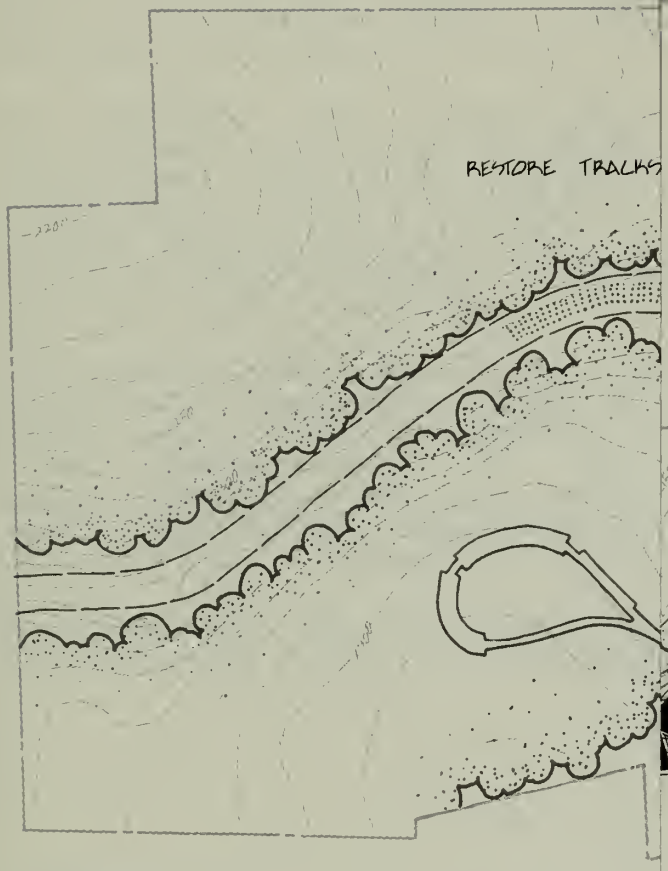
summit level. Another model would represent the canal boats used on the Portage Railroad. One canal boat will be cresting the incline while it's counter balance will be below the Skew-Arch Bridge. The models will provide interpretation and allow for visitor interaction.

The Lemon House will be adaptively used for two functions. The main floor will be converted to exhibit historic furnishings representing a period house and tavern. The upper floors will be retained as offices for interpretive staff.

The technological story, including the workings of the incline and engine house, will be moved to a rebuilt engine house. The engine house will represent the original in scale and mass. Additional replication on the exterior of the building will represent the original as closely as possible, using material from existing research, photographs, and George Storm's painting. The interior will be adaptively used to house exhibits, tell the technological story, and interpret the ruins of the engine house foundation.

The Incline 6 trail will be redeveloped to provide hard-surface handicap access to both models. The Loop Nature Trail will be retained but will begin at the visitor center instead of the Lemon House.

Although the GMP discussed the visitor center, the location was left ambiguous. As outlined in this document, the visitor center is a much more extensive development than that discussed in the GMP and will require a new parking facility and utilities. This alternative will require separate section 106 compliance on these additional facilities.



LOCATE ALTERNATIVE ACCESS TO TOWNSHIP ROAD

6. SKEW-ARCH BRIDGE

OBLITERATE WEST BOUND 22. GRADE TO HISTORIC LEVEL AND REBUILD TRACKS TO VISUALLY CONNECT BRIDGE AND ENGINE HOUSE.

7. INTERPRETIVE MODEL

FULL SCALE MODEL OF CANAL BOAT
BALANCE TO MODEL AT TOP OF INCLINE

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0 150 300 600 900 FEET
SCALE

PROPOSAL
INTERPRETIVE MODEL
RTAGE RAILROAD NHS

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

1. VISITOR CENTER

CONSTRUCT VISITOR CENTER TO INTERPRET ECONOMIC AND SOCIAL CONTEXT OF ALPO STORY PLUS THE STORY ITSELF. HOUSES ADMINISTRATIVE HEADQUARTERS.

ESTABLISH GALLITZIN ROAD AS PRIMARY PARK ENTRANCE

BUILD NEW PARKING LOT
CLOSE ROAD BEYOND PARKING LOT
SCREEN PARKING LOT

RESTORE TRACKS FROM BEND TO BRIDGE

INTERPRETIVE MODEL

FULL SCALE MODEL OF CANAL BOAT AT CREST OF INCLINE.

5.

LOCATE ALTERNATIVE ACCESS TO TOWNSHIP ROAD

6. SKEW-ARCH BRIDGE

OBLITERATE WEST BOUND 22. GRADE TO HISTORIC LEVEL AND REBUILD TRACKS TO VISUALLY CONNECT BRIDGE AND ENGINE HOUSE.

7. INTERPRETIVE MODEL

FULL SCALE MODEL OF CANAL BOAT BALANCE TO MODEL AT TOP OF INCLINE

2.

INTERPRETIVE MODEL

FULL SCALE MODEL OF PASSENGER VEHICLE AND LOCOMOTIVE ON TRACKS.

4.

3. ENGINE HOUSE

REPLICATE ENGINE HOUSE TO PROTECT RUINS. UTILIZE AS EXHIBIT FOR RUINS AND NON-OPERATIONAL MODELS TO TELL TECHNOLOGICAL STORY.

LEMON HOUSE

CONVERT FIRST FLOOR TO INTERPRET HISTORIC HOUSE, FURNISHINGS, & TAVERN. UPPER FLOORS TO BE UTILIZED AS INTERPRETIVE OFFICES

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0 150 300 600 900 FEET
SCALE

PROPOSAL
INTERPRETIVE MODEL
ALLEGHENY PORTAGE RAILROAD NHS

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

ALTERNATIVES

Alternative 1 -- Minimum Action

This alternative would retain the existing visitor access sequence and experience that was recommended by the GMP. The visitor sequence would be as follows:

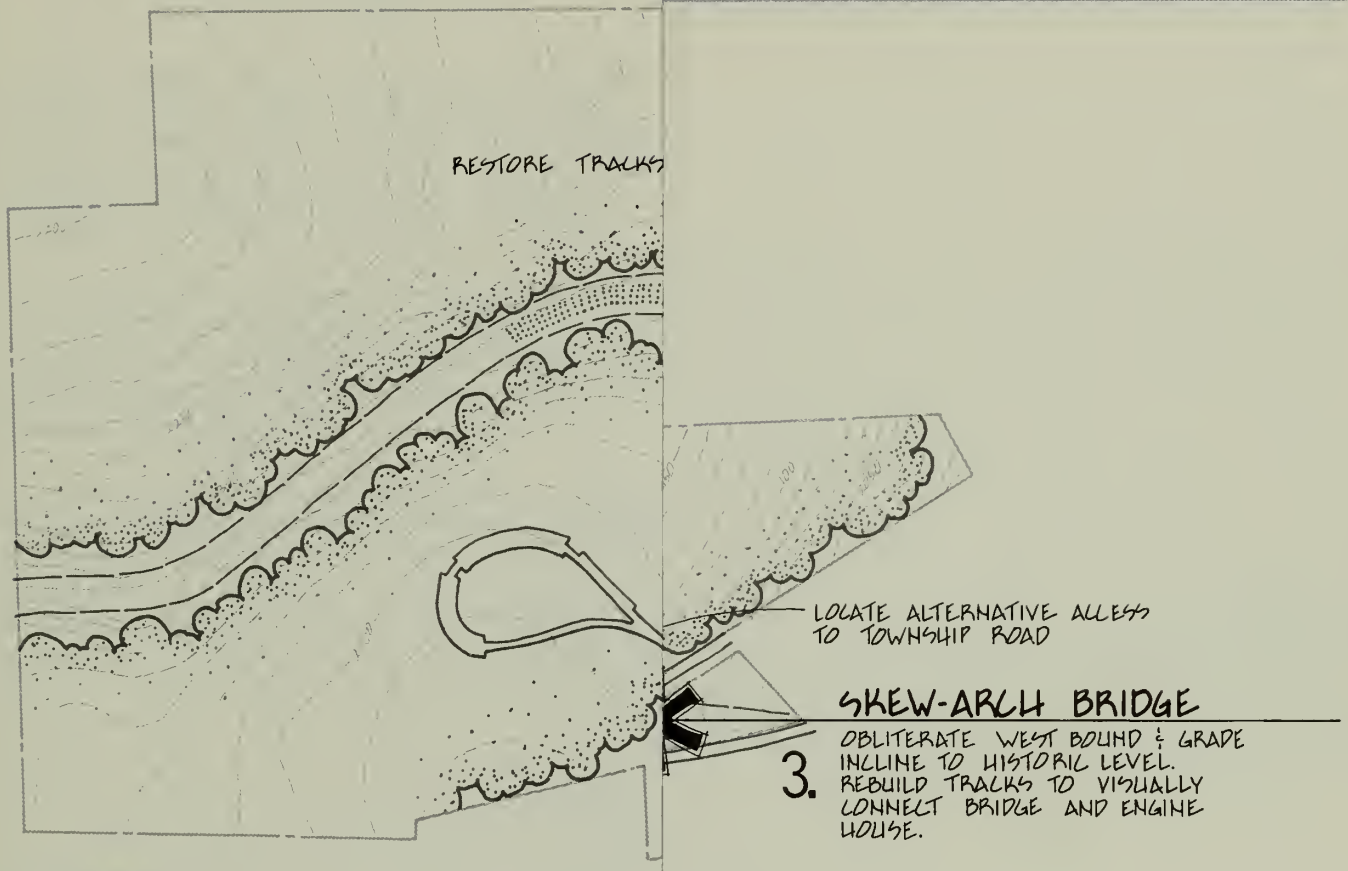
1. Lemon House visitor center (orientation, context, general story)
2. Engine house (technical story)
3. Skew-Arch Bridge

Orientation and the basic Allegheny Portage story would remain in the Lemon House. The interpretive focus of the Lemon House would be altered to include the social and economic context of the historic era--what was occurring and what sparked development of the canal system.

The technological story, including the workings of the incline, engine house, and locomotive would be moved to a rebuilt engine house. The exterior of the building would replicate the original as closely as possible using materials from existing research, photographs, and George Storm's painting. The interior would be adaptively used to house exhibits, tell the technological story, and interpret the ruins of the engine house foundation. The building would also protect these ruins.

The railroad grade would be excavated to its historic level. The railroad tracks would be restored (replicated where necessary) from the bend near the picnic area to below the Skew-Arch Bridge. This would, again, require closing westbound old U.S. 22. The Allegheny Township Road would also require closing or finding of an alternate access. The Gallitzin Road would remain closed without changing the surface treatment. The trail system connecting these resources would remain.

This alternative does not deviate from the park's GMP. Actions may be implemented upon completion of an Assessment of Effect (XXX) form.


RESTORE TRACKS
LOCATE ALTERNATIVE ACCESS TO TOWNSHIP ROAD
SKEW-ARCH BRIDGE
3. OBLITERATE WEST BOUND & GRADE INCLINE TO HISTORIC LEVEL. REBUILD TRACKS TO VISUALLY CONNECT BRIDGE AND ENGINE HOUSE.

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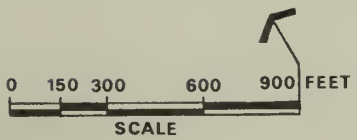
ALTERNATIVE 1
MINIMUM ACTION
RTAGE RAILROAD NHS



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RESTORE TRACKS FROM BEND TO BRIDGE

RETAIN EXISTING ALLESS AND PARKING

ENTRANCE

SCREEN FROM TRAFFIC

LOCATE ALTERNATIVE ALLESS TO TOWNSHIP ROAD

1. LEMON HOUSE

RETAIN AS INITIAL VISITOR CONTACT STATION. INTERPRET ECONOMIC & SOCIAL CONTEXT PLUS ALPO STORY.

2. ENGINE HOUSE

REPLICATE ENGINE HOUSE TO PROTECT RUINS. UTILIZE TO INTERPRET RUINS AND TELL TECHNOLOGICAL STORY WITH EXHIBITS.

3. SKEW-ARCH BRIDGE

OBLITERATE WEST BOUND ½ GRADE INCLINE TO HISTORIC LEVEL. REBUILD TRACKS TO VISUALLY CONNECT BRIDGE AND ENGINE HOUSE.

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0 150 300 600 900 FEET
SCALE

ALTERNATIVE 1
MINIMUM ACTION
ALLEGHENY PORTAGE RAILROAD NHS

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NATIONAL PARK SERVICE

Alternative 2--Working Railroad

This alternative would provide maximum interpretation by simulating the historic railroad experience for visitors. This simulation would include a ride along the level behind a steam locomotive, a stop at the Lemon House, and a ride down the incline and return. The visitor sequence would be as follows:

1. Regional interpretive center (regional story, orientation, ALPO story)
2. Ride on replicated railroad
3. Lemon House (historic house)
4. Engine house
5. Incline ride to bridge
6. Skew-Arch Bridge

Alternative 2 would utilize the existing picnic area and parking lot as a new visitor center site and parking lot. The center would function as the regional interpretive center for the America's Industrial Heritage Project in addition to the ALPO visitor center. The center would orient visitors to the variety of opportunities and resources in the region as well as the historic social and economic context of the era.

The Allegheny Portage story would be expanded and be more interactive for visitors. Outside the new visitor center at a constructed train stop and boarding area, visitors could board an operating replica train and ride the grade of the Portage Railroad. The ALPO story would be interpreted on board the moving train.

The train would have two stops. The first would be at the rebuilt engine house, where visitors could see exhibits of the technological story and the foundation ruins. The main floor of the Lemon House would be historically furnished to exhibit a period house and tavern. The upper floors would remain as administrative headquarters. The visitor would have the option of returning to the visitor center or to continue on the train down the incline to the second stop at the Skew-Arch Bridge. Beyond the bridge would be another train stop and boarding area, where the bridge would be interpreted.

Actual construction of the incline would use modern technology. Construction for the incline would require two underground excavations, one at the base of the incline under the tracks and a larger excavation (40' x 40') to house the drive mechanisms. This could be located at the base or top of the incline. Any location would require a large gear wheel within the engine house foundation ruins, if the incline cars were to enter the engine house.

If the gear wheel and reconstruction of the engine house were determined to negatively impact any historic ruins, the engine house would be built directly to the east of the foundation ruins. The building, being in a nonhistoric location, would be designed in a modern architecture to visually separate it from the historic scene.

The railroad and incline, which would operate from May to September, would require a minimum of eight staff positions during that time (four maintenance

people and four operators).

The parking lot currently used for the Lemon House would be screened from the entrance road and converted to a picnic area. As in the previous alternatives, westbound old U.S. 22 would be obliterated and Allegheny Township Road would be closed or an alternative access found. The Gallitzin Road would have the asphalt paving removed within the boundary.

As with the proposal, section 106 would be required for the actions not discussed in the GMP. The size and scope of the regional interpretive center were not anticipated in the GMP nor was the concept of an operating train with attendant stops and boarding areas.

RE
OPER
FOR
TOLD
ON

REPL

BUILD TRAIN STOP/
BOARDING AREA

NE
G RIDES

1.

LOCATE ALTERNATIVE ACCESS
TO TOWNSHIP ROAD

BUILD TRAIN STOP/BOARDING AREA

SKEW-ARCH BRIDGE
OBLITERATE WEST-BOUND 22. GRADE TO
HISTORIC LEVEL AND REBUILD TRACKS.

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REGIONAL IN
CONSTRUCT INTERPR
INDUSTRIAL HERITA
ECONOMIC STORY
ENTRANCE TO TRA

ALTERNATIVE 2
WORKING RAILROAD
RTAGE RAILROAD NHS

0 150 300 600 900 FEET
SCALE

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

REPLICATED RAILROAD

OPERATING REPLICA PROVIDING RIDES FOR VISITORS. ALPO STORY TO BE TOLD BY INTERPRETER AND EXHIBITS ON TRAIN.

REPLICATE TRACKS

BUILD TRAIN STOP/ BOARDING AREA

2.

4.

ENGINE HOUSE

REPLICATE ENGINE HOUSE TO PROTECT. UTILIZE AS TRAIN STOP/BOARDING AREA. EXHIBITS TELL TECHNOLOGICAL STORY.

REPLICATED INCLINE

OPERATING REPLICA PROVIDING RIDES FOR VISITORS.

5.

1.

PICNIC AREA

VISUALLY SCREEN

LOCATE ALTERNATIVE ACCESS TO TOWNSHIP ROAD

BUILD TRAIN STOP/BOARDING AREA

6. SKEW-ARCH BRIDGE

OBLITERATE WEST-BOUND 22. GRADE TO HISTORIC LEVEL AND REBUILD TRACKS.

3. LEMON HOUSE

CONVERT FIRST FLOOR TO EXHIBIT HISTORIC FURNISHINGS, HOUSE, & TAVERN. RETAIN UPPER FLOORS AS ADMINISTRATIVE HEADQUARTERS.

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REGIONAL INTERPRETIVE CENTER

CONSTRUCT INTERPRETIVE CENTER FOR AMERICA'S INDUSTRIAL HERITAGE PROJECT. SOCIAL AND ECONOMIC STORY TOLD HERE. SERVES AS ENTRANCE TO TRAIN STOP & BOARDING.

0 150 300 600 900 FEET
SCALE

ALTERNATIVE 2
WORKING RAILROAD
ALLEGHENY PORTAGE RAILROAD NHS

UNITED STATES DEPARTMENT OF THE INTERIOR
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Alternative 3--Replicated Incline

This alternative would enhance the visitor experience by adding visual and experiential replications to the Summit Unit. It would provide more convenient access from the new U.S. 22. In addition, it would set up potential linkages to Gallitzin and the proposed train tours, and old U.S. 22 should that become a tour route in the America's Industrial Heritage Project. The new visitor sequence would be as follows:

1. Visitor center (orientation, general story)
2. Model of canal boat
3. Lemon House (historic tavern, house, furnishings)
4. Engine house (technical story)
5. Incline ride to bridge
6. Skew-Arch Bridge

Visitors would be directed to the park from the new U.S. 22 /Gallitzin interchange. This entry would provide, as in the proposal, a more intimate entry through a forested area that is visually pleasing and that creates a transition between the modern and historic settings. The new entrance road would end in a new parking lot in the existing field north of the Lemon House and railroad grade (see Alternative 3 map). Planting more trees would screen the parking lot from the historic scene. The Gallitzin Road would be closed to vehicles beyond the parking lot. Existing pavement would be removed from the closed section of the road between the new parking lot and old U. S. 22. The trace could be resurfaced with a dirt/gravel mix or paving that would blend with the historic scene. Gates at each end of this road segment would be designed to allow emergency access for fire or police, which would also blend with the historic scene. New directional signs would be placed at the Gallitzin exit. The existing parking lot would remain for administrative use.

Next to the parking area would be a site for a new visitor center and additional administrative offices. The visitor center would orient people to the cultural opportunities and activities throughout the region, the social and economic context of the era, the story of Allegheny Portage Railroad, and the impacts of the railroad. Additional administrative space would be needed for personnel required to implement this alternative. The park headquarters would be in the visitor center building.

The railroad grade along the summit level would be excavated to its historic elevation. The railroad tracks would be restored (replicated where necessary). The visitor experience would be further enhanced by a full-scale, nonoperating interpretive model in a fixed location on the summit level. The model, a locomotive and canal boat, would provide interpretation and allow visitor interaction.

The Lemon House would be adaptively used for two functions. The main floor would be converted to exhibit historic furnishings representing a period house and tavern. The upper floors would be retained as offices for interpretion.

The technological story, including the workings of the incline and engine

house would be the same as the proposal. The engine house would function as the upper terminus of the functioning replication of the inclined plane. The incline would include an operating replica passenger car for visitors to ride and experience. Replication of the incline would extend from the engine house to the level area just beyond the Skew-Arch Bridge. At the level area, a simple, open-air boarding area, based on historic sketches would be constructed. Visitors would be allowed to ride the incline, get off at the base, and tour the bridge.

Visitors would also be able to park near the Skew-Arch Bridge and ride up the incline to approach the Summit Level from the base. Access would be facilitated by closing the westbound lanes of old U.S. 22 by PENNDOT to through-traffic. Most of the road would be retained and would end in a 10-car parking lot east of the bridge. Allegheny Township Road would either be closed or rerouted to connect with the parking access road (westbound old U.S. 22) east of the parking lot.

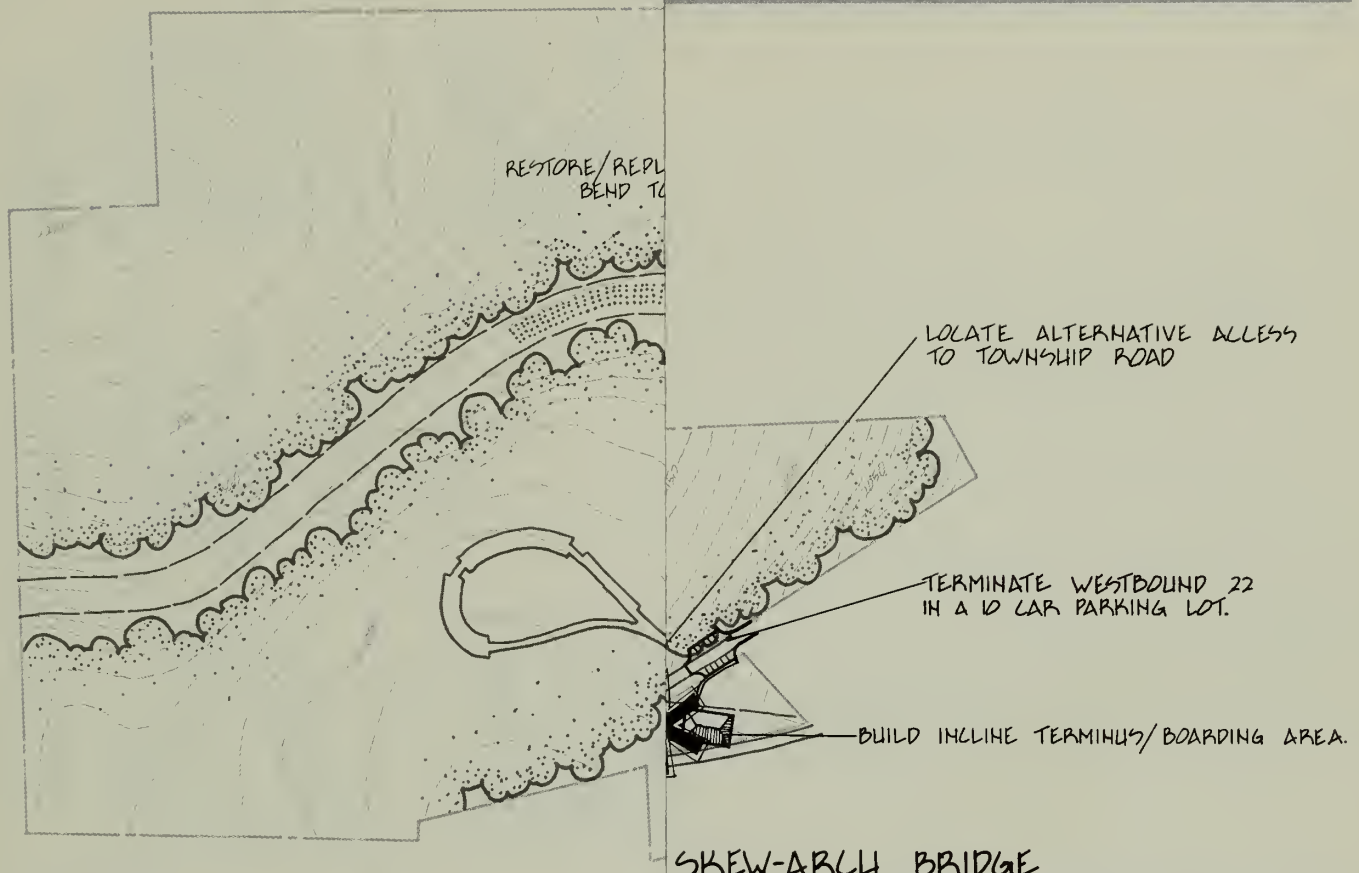
Actual construction of the incline would use modern technology. Construction would require two underground excavations, one at the base of the incline under the tracks and a larger excavation (40' x 40') to house the drive mechanisms. This could be located at the base or top of the incline. Any location would require a large gear wheel within the engine house foundation ruins, if the incline cars were to enter the engine house.

If the gear wheel and reconstruction of the engine house are determined to negatively impact the historic ruins, the engine house would be built directly to the east of the engine house foundation ruins. Because the building is in a nonhistoric location, comtemporary architecture would be used to visually separate it from the historic scene.

The incline would operate from May to September and require a minimum of four staff positions during that time (two maintenance people and two operators).

Existing trails on the unit would remain. The Summit Level, Quarry, and Incline 6 trails would be available for visitor use. These trails have numbered sign posts that correspond with the "Trace Tracker" guide available at the visitor center. This system establishes a hierachy between the trails and the primary ALPO story, and should, therefore, be retained. The Loop Nature Trail would be retained but would begin at the visitor center instead of the Lemon House.

This plan would differ significantly from the proposal in the GMP. Changes would include a new entrance from the Gallitzin Road, a new visitor center with administrative offices and a parking area across the incline north of the Lemon House, replication of the inclined plane as a working visitor interpretive device, and associated boarding and terminus facilities. These deviations from the GMP would necessitate section 106 compliance under the Advisory Council's "Regulations for the Protection of Historic and Cultural Properties" (36 CFR 800).


RESTORE/REPL
BEHD TO
LOCATE ALTERNATIVE ACCESS TO TOWNSHIP ROAD
TERMINATE WESTBOUND 22 IN A 10 CAR PARKING LOT.
BUILD INCLINE TERMINUS/BOARDING AREA.

SKEW-ARCH BRIDGE

OBLITERATE WEST-BOUND 22 BEYOND PARKING. GRADE TO HISTORIC LEVEL AND REPLICATE TRACKS.

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ALTERNATIVE 3
REPLICATED INCLINE
RTAGE RAILROAD NHS

0 150 300 600 900 FEET
SCALE

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

1. VISITOR CENTER

CONSTRUCT VISITOR CENTER TO INTERPRET ECONOMIC AND SOCIAL CONTEXT OF ALPO PLUS THE ALPO STORY. HOUSES ADMINISTRATIVE HEADQUARTERS.

ESTABLISH GALLITZIN ROAD AS PARK ENTRANCE

BUILD NEW PARKING LOT
CLOSE ROAD BEYOND PARKING LOT
REMOVE ASPHALT BETWEEN GATES

RESTORE/REPLICATE LEVEL TRACKS FROM BEND TO ENGINE HOUSE

VISUALLY SCREEN

REPLICATED INCLINE

OPERATING REPLICA PROVIDING RIDES FOR VISITORS. ADDITIONAL ALPO STORIES TO BE INTERPRETED.

LOCATE ALTERNATIVE ACCESS TO TOWNSHIP ROAD

5.

TERMINATE WESTBOUND 22 IN A 10 CAR PARKING LOT.

BUILD INCLINE TERMINUS/BOARDING AREA.

RETAIN UNTIL NEW VISITOR IS BUILT

2.

VISUALLY SCREEN

3.

4. ENGINE HOUSE

REPLICATE ENGINE HOUSE TO PROTECT RUINS. UTILIZE AS INCLINE TERMINUS/ BOARDING AREA. EXHIBITS TELL TECHNOLOGICAL STORY.

6. SKEW-ARCH BRIDGE

OBLITERATE WEST-BOUND 22 BEYOND PARKING. GRADE TO HISTORIC LEVEL AND REPLICATE TRACKS

INTERPRETIVE MODEL

FULL SCALE MODEL OF CANAL BOAT AND LOCOMOTIVE ON TRACKS.

LEMON HOUSE

CONVERT FIRST FLOOR TO INTERPRET HISTORIC HOUSE, FURNISHINGS, & TAVERN. RETAIN UPPER FLOORS AS INTERPRETIVE OFFICES.

423 | 40009
DSC | JANUARY 1988

0 150 300 600 900 FEET
SCALE

ALTERNATIVE 3
REPLICATED INCLINE
ALLEGHENY PORTAGE RAILROAD NHS

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES

	Proposal	Alternative 1	Alternative 2	Alternative 3
ACTIONS	Construct 5400 sq. ft. visitor center north of R.R. grade away from historic area	Continue use of existing visitor center facility	Construct 7550 sq. ft. visitor center next to R.R. grade near picnic area	Same as proposal
Impacts				
Visitor Use & Experience	Easier access from new highway would improve entry sequence and provide for expanded interpretive story for ALPO	No impact	Entry sequence would improve, provide for expanded interpretive story for ALPO & AIHP	Same as proposal
Natural Resources	Ground disturbance during construction, loss of farmland under construction areas	No impact	Same as proposal	Same as proposal
Cultural Resources	Visitor center removed from historic zone	No impact	Visitor center relocated within the historic zone	Same as proposal

ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES

	Proposal	Alternative 1	Alternative 2	Alternative 3
Park Management	Decentralize park administration	No impacts	Same as proposal	Same as proposal
ACTION	Reconstruct 8100 sq. ft. engine house (1-1/2 floors)	Reconstruct 5400 sq. ft. engine house	Same as alternative 1	Same as alternative 1
Impacts				
Visitor Use & Experience	Interpretation expanded to include the technological and archeological stories to be told with exhibits and existing foundation ruins	Interpretation expanded to include the technological story to be told in exhibits	Interpretation expanded to include the experience of riding on both a level and an incline	Interpretation expanded to include the experience of riding on an incline
Natural Resources	Some ground disturbance during construction	Same as proposal	Same as proposal	Same as proposal
Cultural Resources	Construction method would determine impact on foundation ruins	Same as proposal	Cables and mechanical equipment to run incline and possibly the steam locomotive	Same as alternative 2

	Proposal	Alternative 1	Alternative 2	Alternative 3
			need to be in or near the foundation ruins--therefore there is a high potential for direct negative impacts on the resource, secondary impact of noise vibration could potentially impact foundation ruins and the Skew-Arch Bridge	
Park Management	Minimum additional interpretive staff of 1 permanent full-time and 2 seasonal employees required	Minimum additional interpretive staff of 1 permanent full-time employee required	Minimum addition of 4 staff to operate incline, 4 staff to operate locomotive and additional interpretive staff; long-term operational costs	Minimum addition of 4 staff required to operate incline and additional interpretive staff; long-term operational costs

ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES

	Proposal	Alternative 1	Alternative 2	Alternative 3
ACTION	No Action	No Action	Construct operating replica steam engine with passenger cars	No Action
Impacts				
Visitor Use & Experience	No impact	No impact	Greatly enhance visitor understanding of original experience	No impact
Natural Resources	No impact	No impact	Ground disturbance during construction causing some vegetation loss	No impact
Cultural Resources	No impact	No impact	Would require removal and relocation of archeological resources, potentially could negatively affect engine house foundation ruins	No impact
Park Management	No impact	No impact	Would require additional staff to run, maintain, and interpret; long-term operational costs	No impact

ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES

	Proposal	Alternative 1	Alternative 2	Alternative 3
ACTION	No Action	No Action	Replicate incline 6 using modern technology from eastbound old U.S. 22 to the engine house foundation ruins	Same as alternative 2
Impacts				
Visitor Use and Experience	No impact	No impact	Greatly enhance visitor understanding of original experience	Same as alternative 2
Natural Resources	No impact	No impact	Ground disturbance during construction, causing some vegetative loss	Same as alternative 2

ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES

	Proposal	Alternative 1	Alternative 2	Alternative 3
Cultural Resources	No impact	No impact	Cables and mechanical equipment would need to be located in or near the foundation ruins --therefore a high potential for direct negative impact on the resource; secondary impact of noise vibration could potentially impact foundation ruin and the Skew-Arch Bridge	Same as alternative 2
Park Management	No impact	No impact	Would require 4 additional staff to operate incline plus interpretive staff	Same as alternative 2

COMPLIANCE

Section 106 compliance on the General Management Plan for Allegheny Portage Railroad National Historic Site was completed under the 1981 "Programmatic Memorandum of Agreement" among the Advisory Council on Historic Preservation, the National Conference of State Historic Preservation Officers, and the National Park Service. Actions flowing from the GMP do not require further section 106 compliance consultation. Each action is documented in an Assessment of Effect (XXX) form that explains the proposed action's effects on the resources and is evidence that the project does not deviate from the GMP.

COST ESTIMATE

PROPOSAL - INTERPRETIVE MODEL

ITEM	AMOUNT	UNIT COST	TOTAL COST
Railroad grade excavation (2,700 lf x 100 ft x 3 ft = 810,000 cu ft / 27)	30,000 cu yd	$ 15/cu yd	$ 450,000
Reconstruct/replicate stone-tie and wood-tie tracks (5250 ft)	5,250 ft	$ 400/ft (2 sets)	2,100,000
Reconstruct engine house (1 1/2 floors)	8,100 sq ft	$ 250/sq ft	2,025,000
Exhibits (HFC)			500,000
Engine model nonoperational			250,000
Construct visitor center	5,400 sq ft	$ 250/sq ft	1,350,000
Construct parking lot	50 cars	$1400/car	70,000
Obliterate existing lot and road (25,500 sq ft by 9)	2,800 sq yd	$ 11/sq yd	30,800
Construct interpretive models (nonoperational) 1 steam locomotive 2 canal boats	2	$1,000,000	2,000,000
Site improvements (screening, 2 gates, sign)			40,000
Subtotal			8,815,800
Contingencies and supervision			2,732,898
Project planning			2,292,108
TOTAL			$13,840,806

ALTERNATIVE 1 - MINIMUM ACTION

ITEM	AMOUNT	UNIT COST	TOTAL COST
Railroad grade excavation (2,700 lf x 100 ft x 3 ft assume 3 ft depth = 810,000 cu ft / 27)	30,000 cu yd	$ 15/cu yd	$ 450,000
Reconstruct /replicate stone -tie and wood-tie tracks (5,250 ft)	5,250 ft	$400/ft 2 set	2,100,000

Reconstruct engine house (1 floor)	5,400 sq ft	$250/sq ft	1,350,000
Exhibits			500,000
Site improvements (additional vegetative screening, road, gate, gate			40,000
Subtotal			4,440,000
Contingencies and supervision			1,376,400
Project planning			1,110,000
TOTAL			$6,926,400

ALTERNATIVE 2 - WORKING RAILROAD

ITEM	AMOUNT	UNIT COST	TOTAL COST
Railroad grade excavation (3,300 lf x 100 ft x 3 ft = 990,000 cu ft / 27)	36,600 cu yd	$15/cu yd	$550,000
Reconstruct/replicate stone-tie and wood-tie tracks	5,850 ft	$400/lf (2 sets)	2,340,000
Reconstruct engine house	5,400 ft	$250/sq ft	1,350,000
Construct regional visitor center	7,550 ft	$250/sq ft	1,887,500
Construct 2 steam engines (operational)	2	$2,000,000	4,000,000
Construct 2 passenger cars	2	$500,000/car	1,000,000
Incline mechanical system			5,000,000
Construct train stops (2) (100' x 40') 600,000	800 sq ft	$75/ft	
Site improvement (additional vegetative screening, road, gate, sign			40,000
Subtotal			16,767,500
Contingencies and supervision			5,197,925
Project planning			4,191,875
TOTAL			$26,157,300

ALTERNATIVE 3 - REPLICATED INCLINE

ITEM	AMOUNT	UNIT COST	TOTAL COST
Railroad grade excavation (2,700 lf x 100 ft x 3 assume 3 ft depth = 810,000 cu ft divide / 27	30,000 cu yd	$ 15/cu yd	$ 450,000
Reconstruct/Replicate stone-tie tracks (2,700 ft)	2,700 ft	$400/ft (2 set)	2,100,000
Reconstruct engine house (1-1/2 floors)	5,400 sq ft	$250/sq ft	1,350,000
Exhibits			500,000
Steam boiler engine model (nonoperational)			250,000
Site improvements (Additional vegetation screening, road, gate, sign)			40,000
Visitor center	5,400 sq ft	$250/sq ft	1,350,000
Construct parking lot	50 cars	$1400/car	70,000
Construct interpretive model (nonoperative)	1	$1,000,000	1,000,000
Incline Mechanical System			5,000,000
Construct 2 passenger cars	2	$500,000	1,000,000
Construct train stop (100' x 40)	4,000 sq ft	$75/sq ft	300,000
Subtotal			14,760,000
Contingencies and supervision			4,575,600
Project planning			3,690,000
TOTAL			$23,025,600

PLANNING PERSPECTIVE

Allegheny Portage Railroad National Historic Site will be part of the America's Industrial Heritage Project. Its role or location along the potential transportation corridor has not yet been determined. Some of the proposed actions in the previous alternatives could, then, conflict with the overall AIHP effort currently underway. To avoid future conflict, the following decision-making priorities are recommended. Decisions concerning the proposed visitor center, the use of the Lemon House, and access to the park would all be directly affected by AIHP, and final decisions should be deferred until those umbrella decisions are made. Additional planning should be completed to determine program and needs for the new visitor center. This could occur during the preliminary design phase. Other alternative actions discussed in this document could be implemented without affecting the overall AIHP and vice versa.

PROPOSED PHASING

Phase One - Target 1990

- Replication of engine house and installation of interior exhibits
- Restoration/replication of tracks on Incline 6 and summit level
- Closure and obliteration of westbound old U.S. 22 by PENNDOT
- Installation of models Incline 6 and summit level
- Installation of new wayside exhibits

Phase Two - Target 1991/1992

- Construction of new visitor center and administrative offices
- Construction of new parking area and resurfacing of Gallitzin Road
- Obliteration of old parking area
- Construction of new trailhead for nature trail near new parking area

Phase Three - Target 1992/1993

- Conversion of Lemon House to tavern and historic furnishings exhibits

ADDITIONAL STAFFING NEEDS

Phase One	
Maintenance	1 season laborer 1 foreman
Interpretation	1 seasonal
Administration	1 clerk-typist
Phase Two	
Maintenance	1 janitor 1 seasonal laborer
Interpretation	1 interpreter 1 seasonal
Administration	1 administrative officer
Protection/Resource Management	1 ranger
Phase Three	
Maintenance	1 maintenace worker
Interpretive	1 seasonal
Summary	
Maintenance	4 FTEs
Interpretation	2 FTEs
Administration	2 FTEs
Protection/Resource Management	1 FTEs
Total Additional FTEs	8 FTEs

PLANNING TEAM

Terri Urbanowski, Team Captain, Landscape Architect, DSC
Dennis Piper, Planner, DSC
Keith Dunbar, On-Site Planner, DSC
Randy Cooley, Superintendent, ALPO
Craig Cellar, Compliance Specialist, DSC
Robert Rothweiler, Natural Resource Specialist, DSC

As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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